

# Work Order ID 95990

January-17-13 3:40:55 PM

\*95990\*

HAI

Page 1

Item ID: D4576-047

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Roller Shaft Weldment

Start Date: 1/17/13 Start Qty: 2.00

\*2\*

Cust Item ID:

Required Date: 2/01/13 Req'd Qty: 2.00

\*2\*

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 13-01-18 Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4576	C								
100	Weld per dwg A/R S.S. rod Batch: H122357	0.00							
*100*									
Large Fab	Memo	0.00							
Large Fab									
110	QC9- Inspect visual per QSI004- Fusion Welds	0.00							
*110*									
QC	Memo	0.00							
Quality Control									
120	QC5- Inspect part completeness to step on W/O	0.00							
*120*									
QC	Memo	0.00							
Quality Control									

② PD 13-02-11

CPL 13-2-11

②

②



13.2.15

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Thermoforming <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/>            Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/>            Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Quality <input type="checkbox"/>            Other <input type="checkbox"/> </div> </div>					
<b>Root Cause</b>	<b>Date</b>	<b>Step</b>	<b>Qty</b>	<b>Description of work order update or Non-conformance</b>	<b>Initial Chief Eng</b>	<b>Action Description</b>	<b>Sign &amp; Date</b>	<b>Verification</b>	<b>QC Inspector</b>		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											

FAULT CATEGORY									
<b>Landing Gear</b>			<b>General</b>						
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain	<input type="checkbox"/> Ovalized	<input type="checkbox"/> Pressure/Forced					
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Temperature/Cure					
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection: Incomplete	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Weld					
<input type="checkbox"/> Crushed/Crimped.	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Wrong Stock Pulled					
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Part Moved						
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Positioned Wrong						
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Other					
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset							
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration							
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence							
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions							

# Work Order ID 95990

January-17-13 3:40:55 PM

**\*95990\***

Page 2

Item ID: D4576-047

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Roller Shaft Weldment

Start Date: 1/17/13 Start Qty: 2.00 **\*2\***

Cust Item ID:

Required Date: 2/01/13 Req'd Qty: 2.00 **\*2\***

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:

Run Start **\*NR1\***

QC: Date: SPC (Y/N): Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <u>CA</u>	0.00							
<b>*130*</b>									
Packaging	Memo	0.00							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
<b>*140*</b>									
QC	Memo	0.00							
Quality Control									

MLF 13-3-7

MLJ 13-03-08

MLF  
13-3-7

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Thermoforming <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/>            Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/>            Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Quality <input type="checkbox"/>            Other <input type="checkbox"/> </div> </div>						
<b>Root Cause</b>	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector			
Doc/Data <input type="checkbox"/>												
Equip/Tooling <input type="checkbox"/>												
Operator <input type="checkbox"/>												
Material <input type="checkbox"/>												
Setup <input type="checkbox"/>												
Other <input type="checkbox"/>												
Process <input type="checkbox"/>												
Supplier <input type="checkbox"/>												
Training <input type="checkbox"/>												
Unapproved <input type="checkbox"/>												
<b>FAULT CATEGORY</b>												
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspector Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other	

# Picklist Print

January-17-13 3:40:59 PM

Page 1

Work Order ID: 95990

\*95990\*

Parent Item: D4576-047

\*D4576-047\*

Parent Item Name: Roller Shaft Weldment

Start Date: 1/17/13

Required Date: 2/01/13

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A NEW ISSUE 12-09-10 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4576-7 *D4576-7* Latch Shaft		Manufactured	No				Each	0.0000	**	2	② B96283	PD 13-02-11	
D4576-13 *D4576-13* Threaded Stud		Manufactured	No				Each	0.0000	**	2	② B96284	PD 13-02-11	

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

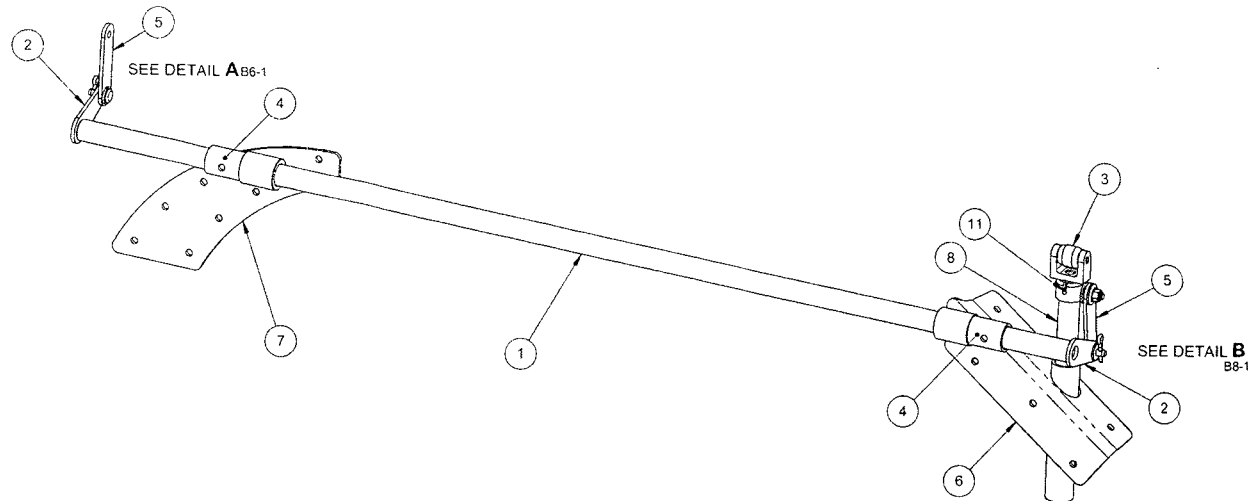
DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

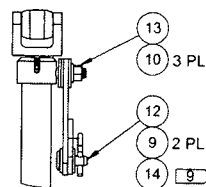
Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Thermoforming <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/>            Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/>            Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Quality <input type="checkbox"/>            Other <input type="checkbox"/> </div> </div>					
<b>Root Cause</b>	<b>Date</b>	<b>Step</b>	<b>Qty</b>	<b>Description of work order update or Non-conformance</b>	<b>Initial Chief Eng</b>	<b>Action Description</b>	<b>Sign &amp; Date</b>	<b>Verification</b>	<b>QC Inspector</b>		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											

FAULT CATEGORY									
<b>Landing Gear</b>			<b>General</b>						
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain	<input type="checkbox"/> Ovalized	<input type="checkbox"/> Pressure/Forced					
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Temperature/Cure					
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Weld					
<input type="checkbox"/> Crushed/Crimped.	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Wrong Stock Pulled					
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Part Moved						
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Positioned Wrong						
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Other					
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset							
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration							
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence							
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions							

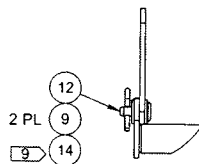
ITEM	QTY -041	P/N	DESCRIPTION
	X	D4576-041	HORIZONTAL LINKAGE ASSY (LH)
1	1	D3589-1	ARM
2	2	D3589-13	LUG
3	1	D4530-041	LATCH ROLLER
4	2	D4576-3	STOP COLLAR
5	2	D4576-11	LINK
6	1	D4576-043	FORWARD PLATE WELDMENT (LH)
7	1	D4576-045	AFT PLATE WELDMENT (LH)
8	1	D4576-047	ROLLER SHAFT WELDMENT
9	4	AN960JD4	WASHER, #4
10	3	AN960JD6	WASHER, #6
11	1	MS16562-193	SPRING PIN
12	2	MS20392-1C7	PIN
13	1	MS21043-06	HEX NUT, SELF LOCKING, #6
14	2	MS24665-1010	COTTER PIN



**D4576-041 HORIZONTAL LINKAGE ASSY (LH)**



**DETAIL B C1-1**



**DETAIL A D5-1**

**NOTES:**

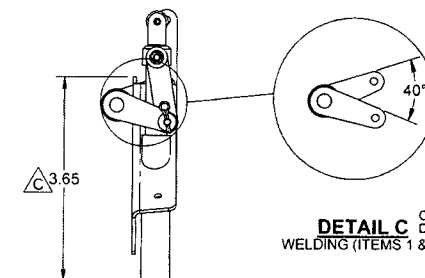
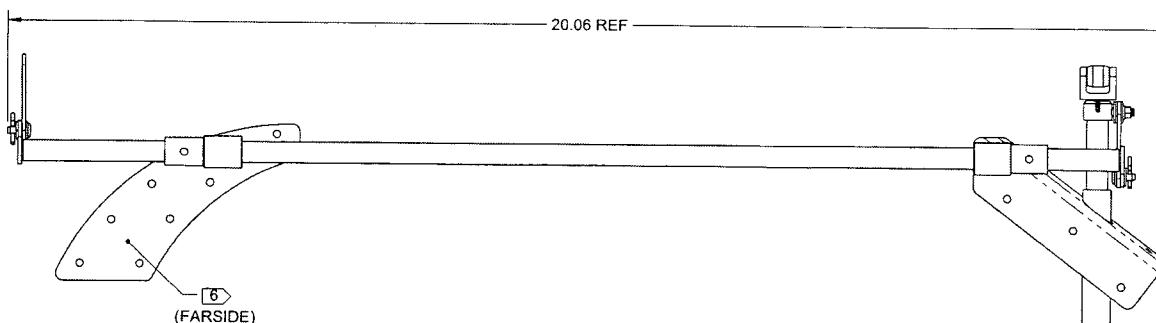
- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.9 lbs
- 8) WELDING: PER DART QSI 004

**RELEASED**  
2012-09-26

DESIGN	RP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RP		
CHECKED	AP	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	D4576	SHEET 1 OF 12
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	HORIZONTAL LINKAGE ASSY	NTS
DATE	12.09.11	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

95990 MJS  
13-01-18

95996



**D4576-041 HORIZONTAL LINKAGE ASSY (LH)**

**RELEASED**  
2012-09-26

**NOTES:**

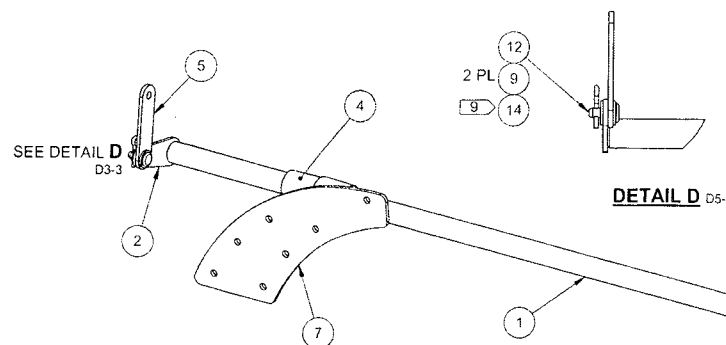
- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER DART QSI 044 6.1
- 7) WEIGHT: 0.9 lbs
- 8) WELDING: PER DART QSI 004
- 9) INSTALL COTTER PIN IN ACCORDANCE WITH MS33540

DESIGN	RP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RP		
CHECKED	AP	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	<b>D4576</b>	SHEET 2 OF 12
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	<b>HORIZONTAL LINKAGE ASSY</b>	NTS
DATE	12.09.11	<small>COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMERCE OR DISCLOSED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

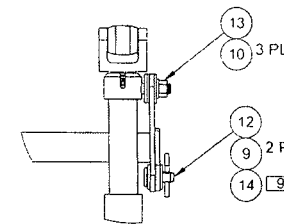


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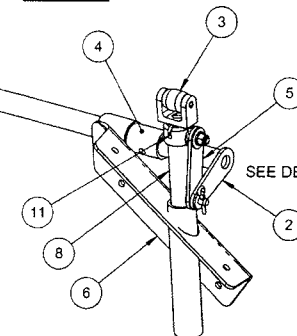
ITEM	QTY	P/N	DESCRIPTION
	X	D4576-042	HORIZONTAL LINKAGE ASSY (RH)
1	1	D3589-1	ARM
2	2	D3589-13	LUG
3	1	D4530-041	LATCH ROLLER
4	2	D4576-3	STOP COLLAR
5	2	D4576-11	LINK
6	1	D4576-044	FORWARD PLATE WELDMENT (RH)
7	1	D4576-046	AFT PLATE WELDMENT (RH)
8	1	D4576-047	ROLLER SHAFT WELDMENT
9	4	AN960JD4	WASHER, #4
10	3	AN960JD6	WASHER, #6
11	1	MS16562-193	SPRING PIN
12	2	MS20392-1C7	PIN
13	1	MS21043-06	HEX NUT, SELF LOCKING, #6
14	2	MS24665-1010	COTTER PIN



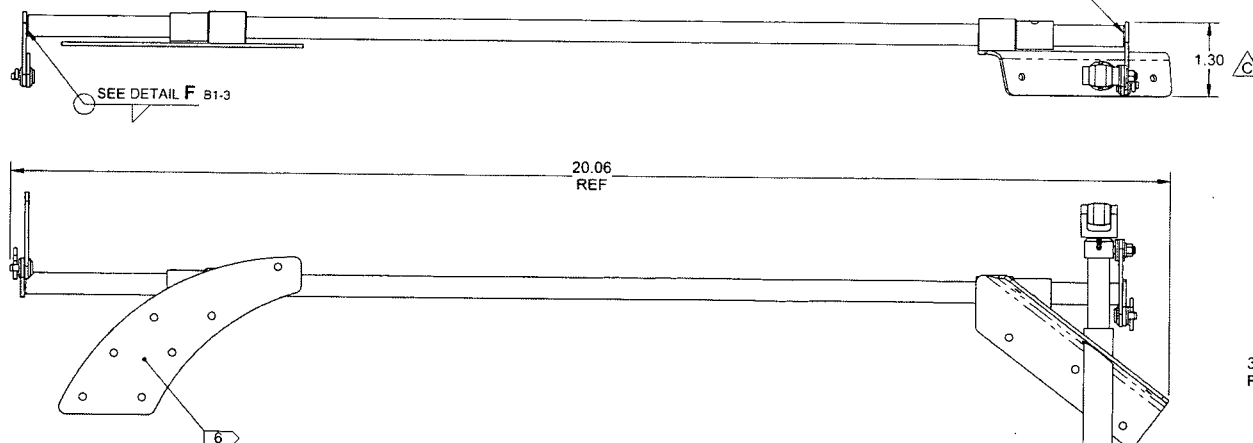
DETAIL D D5-3



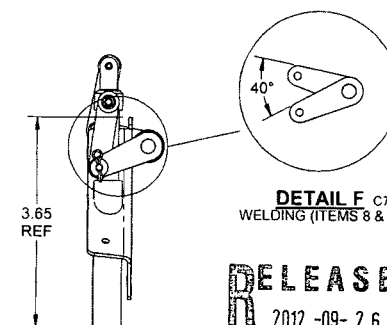
DETAIL E C1-3



SEE DETAIL E D2-3



D4576-042 HORIZONTAL LINKAGE ASSY (RH)



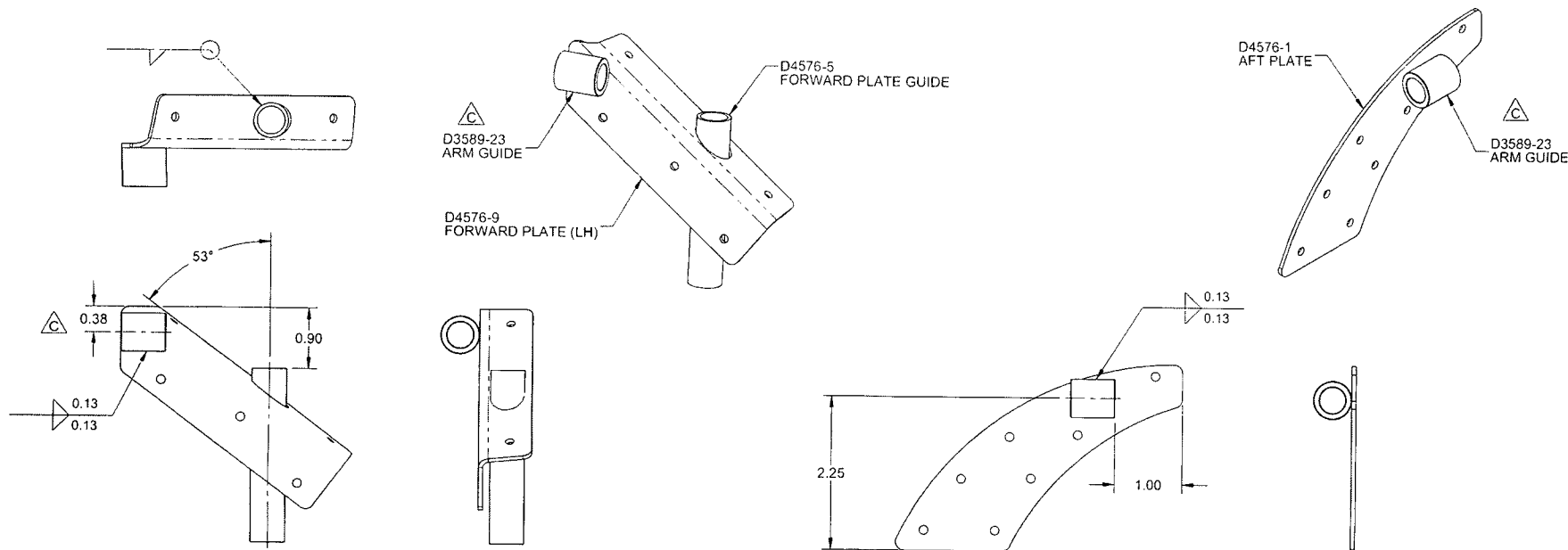
DETAIL F C7-3  
WELDING (ITEMS 8 & 7)

RELEASED  
2012-09-26

- NOTES:
- 1) MATERIAL: N/A
  - 2) FINISH: N/A
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: PER DART QSI 044 6.1
  - 7) WEIGHT: 0.9 lbs
  - 8) WELDING: PER DART QSI 004
  - 9) INSTALL COTTER PIN IN ACCORDANCE WITH MS33540

DESIGN	RP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RP		
CHECKED	AP	DRAWING NO. D4576	REV. C
MFG. APPR.			SHEET 3 OF 12
APPROVED		TITLE	SCALE
DE APPR.		HORIZONTAL LINKAGE ASSY	NTS
DATE	12.09.11	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

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**D4576-043 FORWARD PLATE WELDMENT (LH)**

ITEM	QTY -043	P/N	DESCRIPTION
1	1	D3589-23	ARM GUIDE
2	1	D4576-5	FORWARD PLATE GUIDE
3	1	D4576-9	FORWARD PLATE (LH)

**D4576-045 AFT PLATE WELDMENT (LH)**

ITEM	QTY -045	P/N	DESCRIPTION
1	1	D3589-23	ARM GUIDE
2	1	D4576-1	AFT PLATE

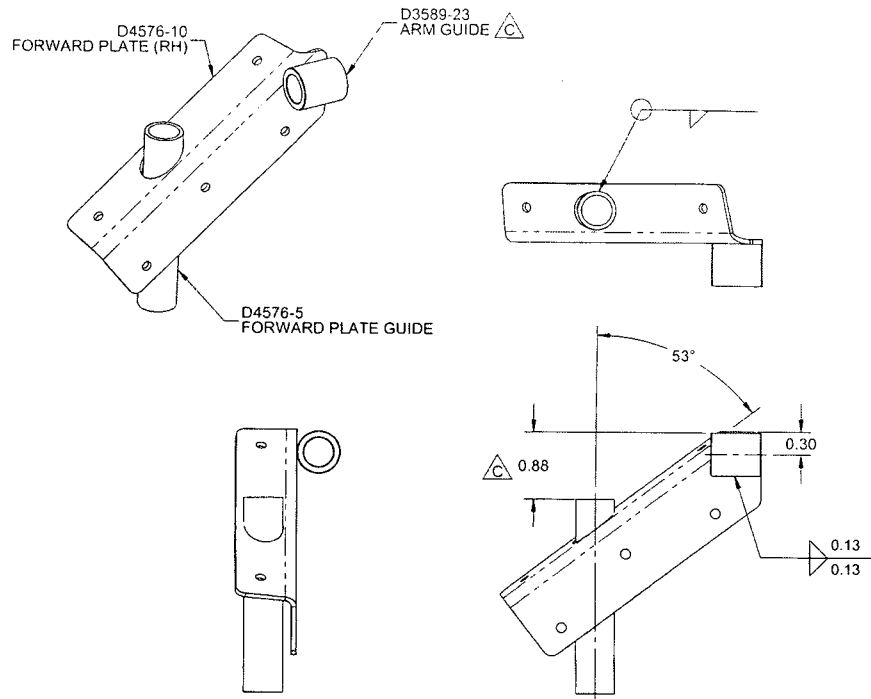
**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT:
  - D4576-043 = 0.19 lbs
  - D4576-045 = 0.16 lbs
- 8) WELDING: PER DART QSI 004

RELEASED  
2012-09-26

DESIGN	RP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RP		
CHECKED	AP	DRAWING NO.	REV. C
MFG. APPR.	DS	<b>D4576</b>	SHEET 4 OF 12
APPROVED	MS	TITLE	SCALE
DE APPR.	MS	<b>HORIZONTAL LINKAGE ASSY</b>	NTS
DATE	12.09.11	COPYRIGHT © 2012 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

95990



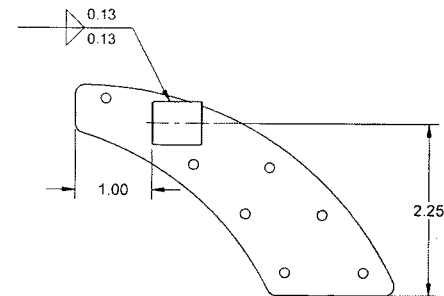
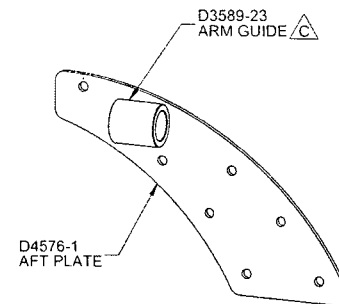
**D4576-044 FORWARD PLATE WELDMENT (RH)**

ITEM	QTY -044	P/N	DESCRIPTION
1	1	D3589-23	ARM GUIDE
2	1	D4576-5	FORWARD PLATE GUIDE
3	1	D4576-10	FORWARD PLATE (RH)

△

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT:
  - D4576-044 = 0.19 lbs
  - D4576-046 = 0.16 lbs
- 8) WELDING: PER DART QSI 004



**D4576-046 AFT PLATE WELDMENT (RH)**

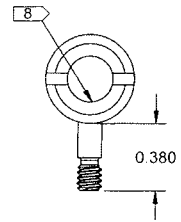
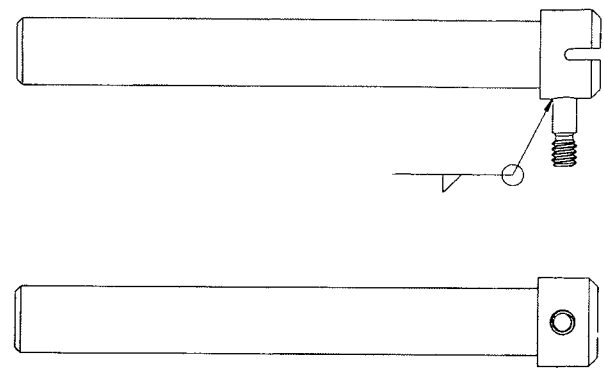
ITEM	QTY -046	P/N	DESCRIPTION
1	1	D3589-23	ARM GUIDE
2	1	D4576-1	AFT PLATE

△

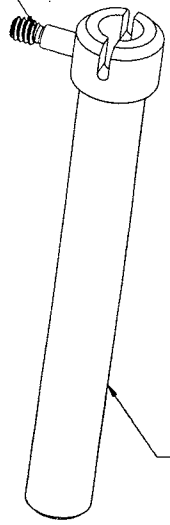
RELEASED  
2012-09-26

DESIGN	RP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RP		
CHECKED	AP	DRAWING NO.	REV. C
MFG. APPR.	DA	D4576	SHEET 5 OF 12
APPROVED	DA	TITLE	SCALE
DE APPR.	DA	HORIZONTAL LINKAGE ASSY	NTS
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95990



D4576-13  
THREADED STUD



D4576-7  
LATCH SHAFT

**D4576-047 ROLLER SHAFT WELDMENT**

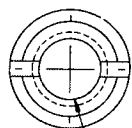
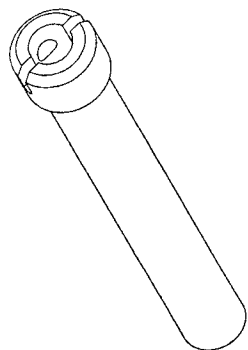
ITEM	QTY	P/N	DESCRIPTION
1	1	D4576-7	LATCH SHAFT
2	1	D4576-13	THREADED STUD

RELEASED  
2012-09-26

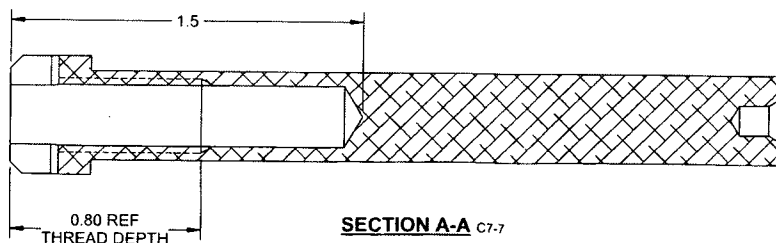
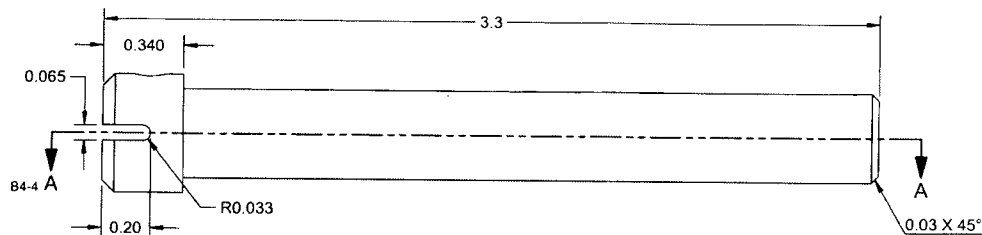
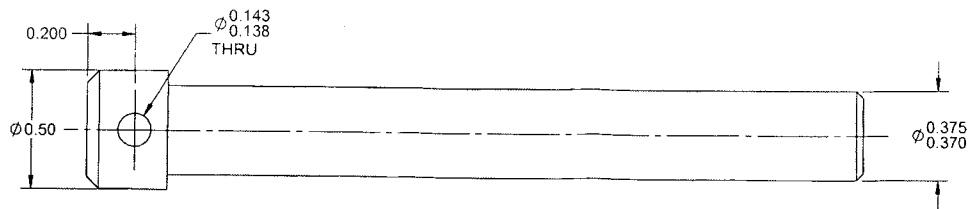
- NOTES:
- 1) MATERIAL: N/A
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: PER DART QSI 044 6.6 OR 6.7
  - 7) WEIGHT: - D4576-047 = 0.07 lbs  
- D4576-13 = 0.01 lbs
  - 8) THREADED STUD NOT TO INTERFERE WITH 5/16-18 THREAD IN LATCH SHAFT
  - 9) WELDING: PER DART QSI 004

DESIGN	RP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	REV. C
DRAWN	RP		
CHECKED	A.P.	DRAWING NO. <b>D4576</b>	SHEET 6 OF 12
MFG. APPR.		TITLE <b>HORIZONTAL LINKAGE ASSY</b>	SCALE NTS
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DE APPR.		DATE <b>12.09.11</b>	

95910

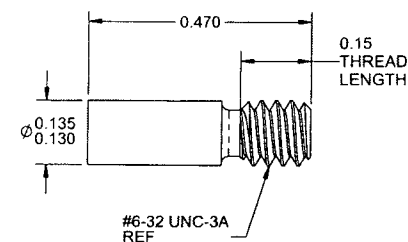
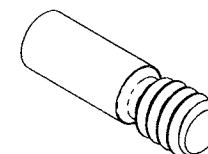


5/16-18 UNC-2B  
0.80 DP



SECTION A-A C7-7

ACCEPTABLE TO  
CENTER DRILL  
MAX #3



8 D4576-13 THREADED STUD

RELEASED  
2012-09-26

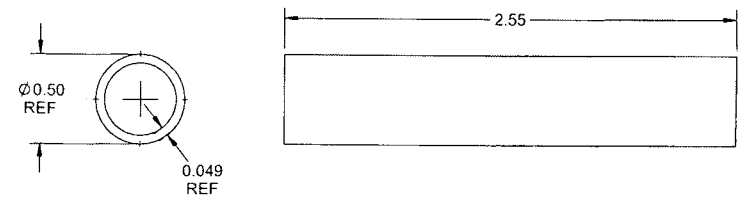
NOTES:

- 1) MATERIAL: AISI 304/316 SS ROUND BAR PER ASTM A276  
REF DART SPEC M304R
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER DART QSI 044 6.6 OR 6.7
- 7) WEIGHT: 0.07 lbs
- 8) MAY BE FABRICATED FROM MCMASTER P/N 97345A458

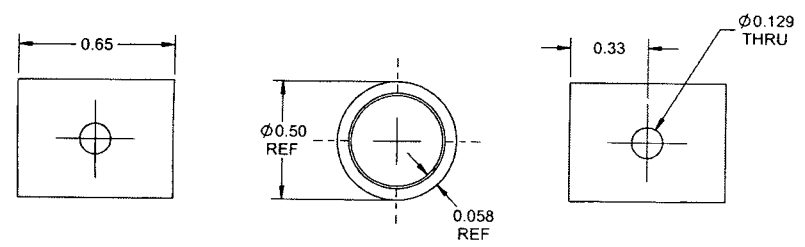
D4576-7 LATCH SHAFT

DESIGN	RP	DART AEROSPACE LTD	
DRAWN	RP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	A.P.	DRAWING NO.	REV. C
MFG. APPR.		D4576	SHEET 7 OF 12
APPROVED		TITLE	SCALE
DE APPR.		HORIZONTAL LINKAGE ASSY	NTS
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**D4576-5 FORWARD PLATE GUIDE**



**D4576-3 STOP COLLAR**

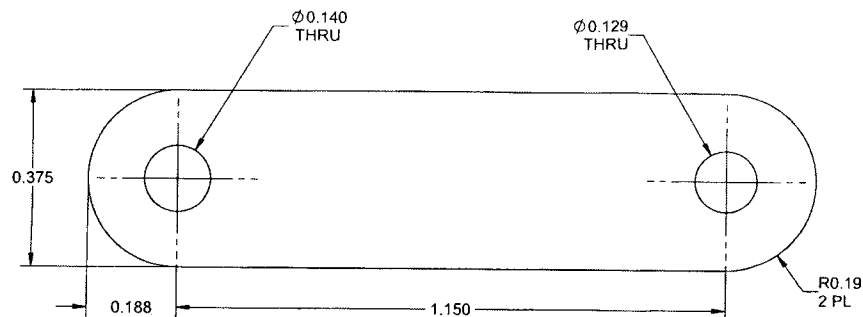
**NOTES:**  
 1) MATERIAL: AISI 304/316 STAINLESS STEEL SEAMLESS ROUND TUBING  
 PER ASTM A213 OR ASME SA213 OR ASTM A269  
 D4576-3: 0.500 O.D. X 0.058 WALL  
 REF. DART SPEC M304TR0.500W.058  
 D4576-5: 0.500 O.D. X 0.049 WALL  
 REF. DART SPEC M304TR0.500W.049

2) FINISH: N/A  
 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
 4) UNITS: INCHES UNLESS OTHERWISE NOTED  
 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
 6) IDENTIFICATION: PER DART QSI 044 6.6 OR 6.7  
 7) WEIGHT: - D4576-3 = 0.01 lbs ea.  
 - D4576-5 = 0.06 lbs

RELEASE  
 2012-09-26

DESIGN	RP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RP		
CHECKED	A.P.	DRAWING NO. <b>D4576</b>	REV. C
MFG. APPR.			SHEET 8 OF 12
APPROVED		TITLE	SCALE
DE APPR.		<b>HORIZONTAL LINKAGE ASSY</b>	NTS
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**D4576-11 LINK**

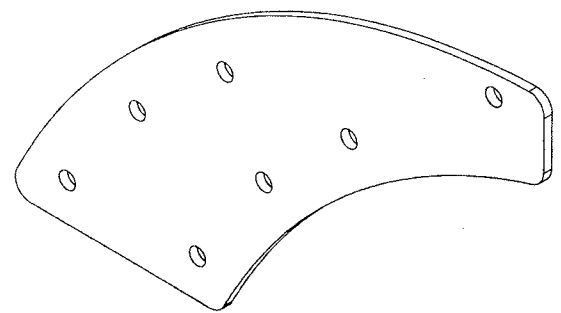
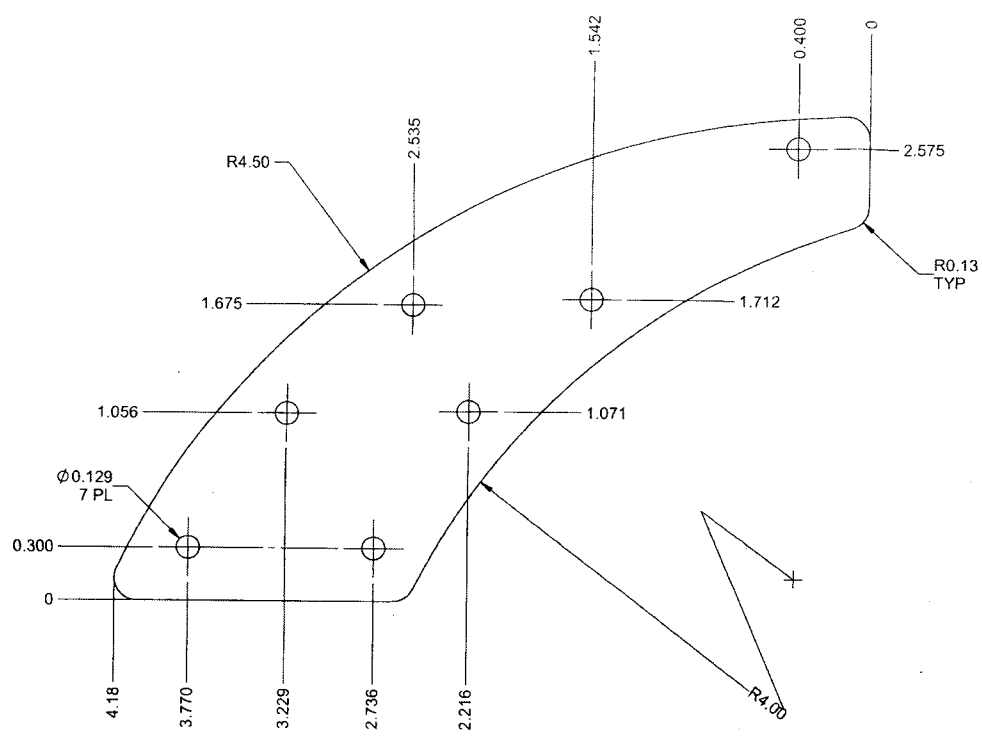
RELEASED  
2012-05-18  
MP

**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, ANNEALED, 2B FINISH.  
16 GAUGE (0.063 THICK)  
PER AMS 5513 OR AMS 5524, OR MIL-S-5059  
REF. DART SPEC M304S16GA
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER DART QSI 044 6.6 OR 6.7
- 7) WEIGHT: <0.01 lbs

DESIGN	RP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RP		
CHECKED	AP	DRAWING NO.	REV. C
MFG. APPR.	MP	D4576	SHEET 9 OF 12
APPROVED	MP	TITLE	SCALE
DE APPR.	MP	HORIZONTAL LINKAGE ASSY	NTS
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**D4576-1 AFT PLATE**

**NOTES:**

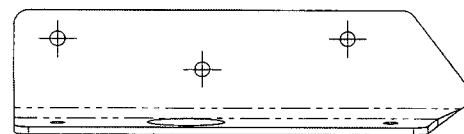
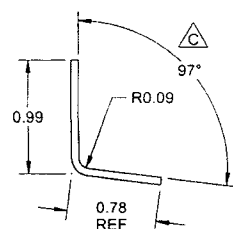
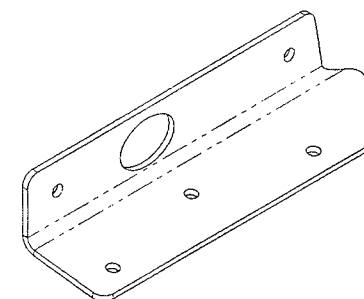
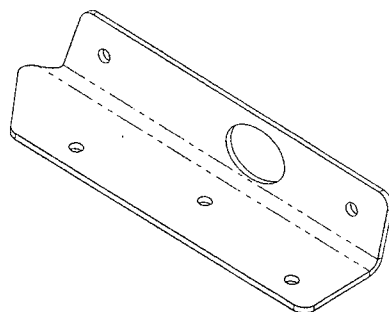
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, ANNEALED, 2B FINISH.  
16 GAUGE (0.063 THICK)  
PER AMS 5513 OR AMS 5524, OR MIL-S-5059  
REF. DART SPEC M304S16GA
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER DART QSI 044 6.6 OR 6.7
- 7) WEIGHT: 0.09 lbs

RELEASED  
2012-09-26  
JND

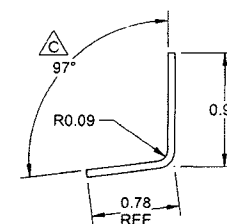
DESIGN	RP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RP		
CHECKED	A.P.	DRAWING NO.	REV. C
MFG. APPR.	[Signature]	D4576	SHEET 10 OF 12
APPROVED	[Signature]	TITLE	SCALE
DE APPR.	[Signature]	HORIZONTAL LINKAGE ASSY	NTS
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**D4576-10 FORWARD PLATE (RH)**  
(MADE FROM D4576-9F)



**D4576-9 FORWARD PLATE (LH)**  
(MADE FROM D4576-9F)

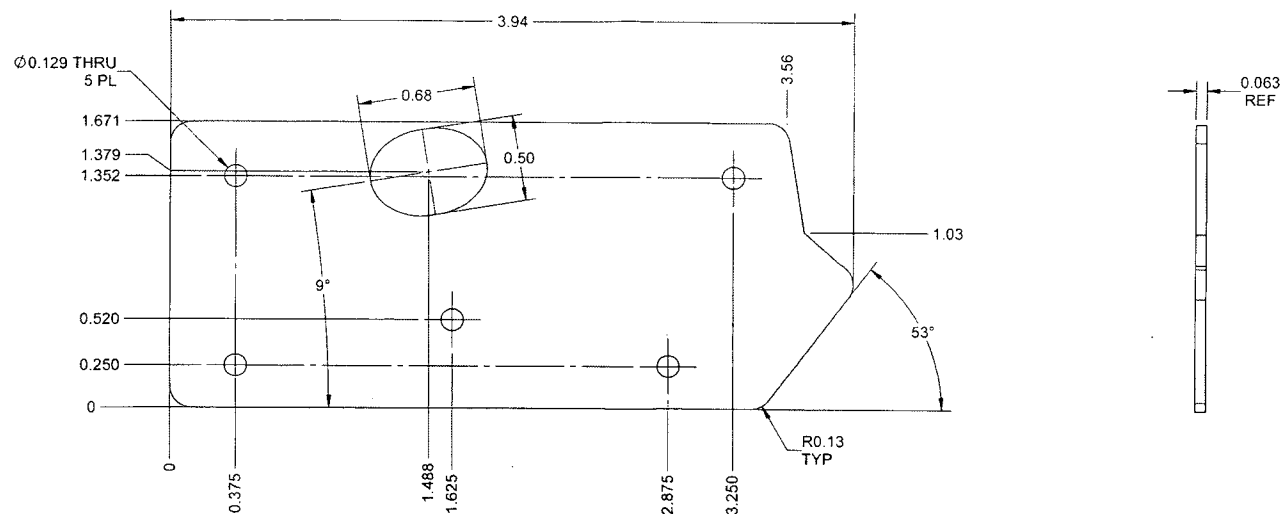
RELEASE  
2012-09-26  
ANN

**NOTES:**


- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER DART QSI 044 6.6 OR 6.7
- 7) WEIGHT: 0.11 lbs

DESIGN	RP	<b>DART AEROSPACE LTD</b>	
DRAWN	RP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AP	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	<b>D4576</b>	SHEET 11 OF 12
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	<b>HORIZONTAL LINKAGE ASSY</b>	NTS
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




**D4576-9F FORWARD PLATE**   
(FLAT PATTERN)

RELEASED  
2012-09-26  


**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, ANNEALED, 2B FINISH.  
16 GAUGE (0.063 THICK)  
PER AMS 5513 OR AMS 5524, OR MIL-S-5059  
REF. DART SPEC M304S16GA
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER DART QSI 044 6.6 OR 6.7
- 7) WEIGHT: 0.11 lbs

DESIGN	RP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RP		
CHECKED	AP	DRAWING NO. <b>D4576</b>	REV. C
MFG. APPR.		SHEET 12 OF 12	
APPROVED		TITLE	SCALE
DE APPR.		<b>HORIZONTAL LINKAGE ASSY</b>	NTS
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